

That Which is Claimed:

1. A masked expression cassette comprising a double stranded nucleic acid
5 molecule wherein a first strand comprises an RNA sequence which codes for a protein of
interest linked downstream of a flanking sequence, and a translation initiation site
operably inserted upstream of the RNA sequence; and,

the second strand bound to the flanking sequence, wherein said second
strand comprises a polynucleotide corresponding to said first strand and to a target
10 molecule.

2. The cassette of claim 1, wherein said cassette further comprises a 7-methyl
guanine cap linked to the 5' end of the flanking sequence.

15 3. The cassette of claim 2, wherein said protein of interest comprises a toxin
selected from the group consisting of Pseudomonas exotoxin A, ribonuclease, Barnase
toxin, Pertussis toxin, and cholera toxin.

4. A masked expression cassette comprising a double stranded nucleic acid
20 molecule comprising a first strand comprising a 5' sense sequence and a 3' sense
sequence;

said first strand further comprising an RNA sequence which codes for a
protein of interest linked downstream of said 5' sense sequence, and a translation
initiation site operably inserted upstream of the RNA sequence; and,

25 the second strand bound to said 5' sense sequence and to said 3' sense
sequence, wherein said second strand comprises a polynucleotide corresponding to said 5'
sense sequence and to said 3' sense sequence and to a target molecule.

5. The cassette of claim 4, wherein said cassette further comprises a 7-methyl
30 guanine cap linked to the 5' end of said nucleic acid molecule.

6. The cassette of claim 5, wherein said protein of interest comprises a toxin selected from the group consisting of Pseudomonas exotoxin A, ribonuclease, Barnase toxin, Pertussis toxin, and cholera toxin.

7. A masked expression cassette comprising a double stranded nucleic acid molecule wherein a first strand comprises an RNA sequence which codes for a protein of interest linked downstream of a plurality of sense sequences, and a translation initiation site operably inserted upstream of the RNA sequence; and,

a plurality of second strands, each bound to an individual sense sequence, wherein each of said second strands comprises a nucleotide sequence corresponding to one of said sense sequences and to a target molecule.

8. The cassette of claim 7, wherein said cassette further comprises a 7-methyl guanine cap linked to the 5' end of said nucleic acid molecule.

9. The cassette of claim 8, wherein said protein of interest comprises a toxin selected from the group consisting of Pseudomonas exotoxin A, ribonuclease, Barnase toxin, Pertussis toxin, and cholera toxin.

10. The cassette of claim 8, wherein each of said sense sequences comprises a distinct nucleotide sequence and each of said second strands comprises a nucleotide sequence corresponding to one of said distinct sense sequences and to a distinct target molecule.

11. The cassette of claim 8 having two sense sequences and two second strands.

12. The cassette of claim 8 having three sense sequences and three second strands.